

# Keystone College

**Course** BIOL 1126  
**Instructor** Joseph Lick  
**Credits** Lab is 25% of 4 credit BIOL 1125 grade  
**Term** Fall 2014  
**Meetings** Tuesday – 2:00-4:50 pm and 6:00 – 8:50 pm  
Wednesday- 8:00 – 10:50 ; 11:00 – 1:50 ; 2:00 – 4:50  
Also 6:00 – 8:50 pm  
Thursday- 6:00 – 8:50

## Instructor's Contact Information

**Office Phone** 945-3114

**Emergency Contact** In the event of an emergency, contact Wanda Howell at 945-8412

**Office Location** Capwell 206 Lab

**Email Address** joseph.lick@keystone.edu

**Office Hours** Tuesday 12:00 – 2:00 pm

**Syllabus Changes** Instructors reserve the right to make changes to the syllabus as needed, and you are responsible for keeping up with those changes. Please logon regularly to Moodle to get the most current information.

## Course Description & Information

**Pre-requisites, Co-requisites, & other restrictions** Maximum enrollment is 18 students per section.

**Course Description** The activities included in this course have been selected to give a broad survey of basic laboratory techniques. You will be experimenting in many areas of biology from single-celled organisms to vertebrates. Your future as a scientist depends upon your ability to seek and notice things that others may overlook. Don't hesitate to go beyond the required observations and READ, READ, READ! GET SMART! IMPRESS YOUR FRIENDS!!!

**Required Readings** It is important to read the associated material in your textbook (Biology by Raven & Johnson) as well as the upcoming lab exercises in your lab manual (Biology by Vodopich & Moore, 10<sup>th</sup> edition) prior to coming to lab each week.

**Buying Textbooks** Please note that the [Keystone College Bookstore](#) has the most complete and up-to-date information about your course textbooks. Be sure you are purchasing the correct edition and receive all the materials you need.

**Other Required Materials** All Biology lab students are required to wear a lab coat and safety approved lab goggles as described in the Lab Safety sheets.

## Course Goals, Objectives/Outcomes

- Learning Outcomes**
1. Students will be able to display proper lab techniques in the areas of biomonitoring, microscopy- using both the compound light microscope and dissecting microscope, biological molecule identification using indicator solutions and also animal dissection.
  2. Students will be able to describe the functioning and significance of cellular processes including cellular transport, cellular respiration and cellular reproduction including the processes of mitosis and meiosis.
  3. Students will be able to describe the general characteristics used in placing organisms in the proper taxonomic Kingdoms.
  4. Students will be able to list the 9 major Phyla in the Animal Kingdom with their main characteristics, as well as listing examples of common animals representing each.

## Grading

- Grading (credit) Criteria** Students' lab grade will be given as 25% of their overall BIOL 1125 grade- not as a separate letter grade. The lab portion will consist of a total of 300 possible points relayed to your lecture Professor at the end of the course. 200 of these points may be earned through proper completion of the weekly labs as described below. Also, a mid-term and final lab practical (exam) worth 50 points each, will be given. Dates for practicals are listed on lab schedule on last page.
- Assignments** Each lab session, students will perform each of the laboratory exercises prescribed for that week. Each week's exercises will be collectively worth 20 points. **NO POINTS CAN BE EARNED IF A LAB IS NOT PHYSICALLY ATTENDED.**
- Make-Up & Late Work** Labs missed due to an emergency or athletic event, can only be made up by attending another scheduled lab section during that same week. No work will be excepted late- except in the case of a make-up.
- Extra Credit** Opportunities will be described by instructor at first lab session.

## Course Policies

<b>Make-Up Exams</b>	In extreme emergencies, students should make arrangements with lab instructor.
<b>Class Preparation &amp; Participation</b>	Students are expected to pre-read each scheduled laboratory exercise and to complete the "Questions for Further Thought and Study" page at the end of each. Students should also read associated text material as listed in lab schedule. Students are to complete all assigned lab exercises and follow all safety rules as described. Students are expected to attend ALL laboratory sessions. The only excused absences are for sports, and a pass from the Coach must be presented; however, these labs must still be made up by attending another scheduled lab session that week. Due to an emergency, labs can be made up by attending another lab session with that instructor's approval. Again, <u>NO points can be earned if a lab is not physically attended.</u>
<b>Class Attendance</b>	
<b>Student Conduct/ Netiquette</b>	For Netiquette information, visit this webpage: <a href="http://web.keystone.edu/library/syllabus/netiquette.htm">http://web.keystone.edu/library/syllabus/netiquette.htm</a>

**BIO - 1126 LAB SCHEDULE  
Fall 2014**

<u>Week</u>	<u>Topics</u>	<u>Lab Manual #</u>	<u>Textbook Reading</u>
#1 Sept. 2-4	Biomonitoring The Metric System		
#2 Sept. 9-11	The Microscope The Cell	Exercises 3 & 4	Chapter 4
#3 Sept. 16-18	Biologically Important Molecules	Exercise 6	Chapter 3
#4 Sept. 23-25	Diffusion and Osmosis	Exercise 9	Chapter 5
#5 Sept. 30-Oct. 2	Mitosis and Meiosis	Exercises 14 & 15	Chapters 10 & 11
#6 Oct. 7-9	<b>Midterm Practical</b>		
#7 Oct. 14-16	Protozoa Poriferans & Cnidarians	Exercise 26 Exercise 36	Chapters 29 Chapters 33.1 – 33.5
#8 Oct. 21-23	Platyhelminthes Nematoda	Exercise 37	Chapter 34.2 & 34.8
#9 Oct. 28-30	Mollusks Annelids	Exercise 38	Chapters 34.4 & 34.6
#10 Nov. 4-6	Arthropods Echinoderms	Exercises 39 & 40	Chapters 34.9 & 35.1
#11 Nov. 11-13	Vertebrate Anatomy/ Human Anatomy	Exercises 42, 43 & 47	Chapter 35.3- 35.9
#12 Nov. 18-20	Vertebrate Anatomy / Rat	Exercise 48 & 49	Chapter 35.3-35.9s
#13 Nov. 25-27	<b>Thanksgiving Break – No Lab</b>		
#14 Dec. 2-4	<b>Final Lab Practical</b>		